WHAT IS CLAIMED IS:

1. A method for transmitting management control information from an optical line termination (OLT) to an optical network terminal (ONT) in a Gigabit-capable passive optical network (GPON), the method comprising the steps of:

(a) constructing a GPON Transmission Convergence (GTC) frame that includes a physical control block downstream (PCBD) portion having an OMCC field including

a destination identifier information for supporting a GPON encapsulation method (GEM mode), and a payload portion including data; and

(b) transmitting the GTC frame.

2. The method as claimed in claim 1, wherein the PCBd portion further includes an ONT management control channel (OMCC) flag field for determining whether the OMCC field is inserted or not.

3. The method as claimed in claim 1 , wherein, when a mode of the ONT is the GEM mode, a Port ID is used as the destination identifier information for supporting the GEM mode of the OMCC field.

4. The method as claimed in claim 1 , wherein an ONT ID is used as the destination identifier information.

5. The method as claimed in claim 2, wherein one bit in an Ident field defined by the G.GPON.GTC is used as the OMCC flag field.

6. A method for transmitting management control information from an optical line termination (OLT) to an optical network terminal (ONT) in a Gigabit-capable passive optical network (GPON), the method comprising the steps of:

(a) constructing a GPON Transmission Convergence (GTC) frame that includes a physical control block downstream (PCBD) portion having an ONT management control channel (OMCC) field including a destination identifier information for supporting a ATM mode, and a payload portion including data; and

(b) transmitting the GTC frame.

7. The method as claimed in claim 6, wherein, when a mode of the ONT is Asynchronous Transfer Mode (ATM), a virtual path identifier (VPI) and a virtual channel identifier (VCI) are used as the destination identifier information for supporting the ATM mode of the OMCC field.

8. The method as claimed in claim 6, wherein an ONT ID is used as the destination identifier information.

9. The method as claimed in claim 8, wherein one bit in an Ident field defined by the G.GPON.GTC is used as the OMCC flag field.

10. A method for transmitting management control information from an optical network terminal (ONT) to an optical line termination (OLT) in a Gigabit-capable passive optical network (GPON), the method comprising the steps of:

(a) constructing a GPON Transmission Convergence (GTC) frame which includes a physical control block downstream (PCBD) portion having an ONT management control channel (OMCC) field including either destination identifier information for supporting one of a GPON encapsulation method GEM mode and a destination identifier information for supporting a ATM mode, and a payload portion in which data are included; and

(b) transmitting the GTC frame.

11. The method as claimed in claim 10, wherein the PCBd portion further includes an OMCC flag field for determining whether the OMCC field is inserted or not.

12. The method as claimed in claim 10, wherein, when a mode of the ONT is the GEM mode, a Port ID is used as the destination identifier information for supporting the GEM mode of the OMCC field.

13. The method as claimed in claim 10, wherein, when a mode of the ONT is the ATM mode, VPI/VCI are used as the destination identifier information for supporting the ATM mode of the OMCC field.

14. The method as claimed in claim 10, wherein an ONT ID is used as the destination identifier information.

15. The method as claimed in claim 11, wherein one bit in an Ident field defined by the G.GPON.GTC is used as the OMCC flag field.

16. A GTC frame structure for transmitting management control information between an optical network terminal (ONT) and an optical line termination (OLT) in a Gigabit-capable passive optical network, the structure comprising:

a physical control block downstream (PCBD) portion having an ONT management control channel (OMCC) field which includes destination identifier information for supporting one of a GPON encapsulation method (GEM mode)or a destination identifier information for supporting a ATM mode; and

a payload portion including data.

17. The GTC frame structure as claimed in claim 16, wherein the PCBd portion further includes an ONT management control channel (OMCC flag) field for determining whether the OMCC field is inserted or not.

18. The GTC frame structure as claimed in claim 16 , wherein, when a mode of the ONT is the GEM mode, a Port ID is used as the destination identifier information for supporting the GEM mode of the OMCC field.

19. The GTC frame structure as claimed in claim 16, wherein, when a mode of the ONT is the ATM mode, VPI/VCI are used as the destination identifier information for supporting the ATM mode of the OMCC field.

20. The GTC frame structure as claimed in claim 16, wherein an ONT ID is used as the destination identifier information.

21. The GTC frame structure as claimed in claim 17, wherein one bit in an Ident field defined by the G.GPON.GTC is used as the OMCC flag field.